COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Southwest Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Appalachian Plastics, Inc.
34001 Glove Drive, Glade Spring, Virginia
Permit No. SWRO11074

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Appalachian Plastics, Inc. has applied for renewal of the Title V Operating Permit for its facility in Glade Spring, Virginia. The Department has reviewed the application and has prepared a Title V Operating Permit.

Air Permit Contact: _____ Date: January 8, 2013
Tony Adkins
(276) 676-4869

Air Permit Manager: _____ Date: January 8, 2013
Rob Feagins

Regional Director: _____ Date: January 8, 2013
Allen J. Newman, P.E.

FACILITY INFORMATION

Permittee
Appalachian Plastics, Inc.
P. O. Box 1044
Glade Spring, Virginia 24340

Facility
Appalachian Plastics, Inc.
34001 Glove Drive
Glade Spring, Virginia 24340

County-Plant Identification Number: 51-191-00140

SOURCE DESCRIPTION

SIC Code: 3089 – Manufacture of plastic products, not elsewhere classified.

Appalachian Plastics, Inc. manufactures fiberglass reinforced plastic products consisting of duct systems, tanks, water playground equipment and various other custom parts. The company utilizes several different processes to coat glass fibers with a resin mix depending on the type of product being produced. These processes include filament winding, pressure fed rolling, flow coating (flow chipping), Instant Start Device (ISD) chopping, impinged nozzle chopping, hand lay-up; spray-applied gelcoat and hand applied gelcoat. Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) emissions from each process occur during resin mixing, resin application and resin curing stages common to each process.

The facility is a Title V major source of VOC and HAP. This source is located in an attainment area for all pollutants. The facility is currently permitted under a minor New Source Review (NSR) permit issued on July 28, 2006, and a Title V operating permit with an expiration date of December 21, 2012.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was completed on August 15, 2012. Partial compliance evaluations of the facility, including site visits, were conducted on August 1, 2012, and August 4, 2012. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Filament Winding Equipment							
01	S1	Appalachian Plastics, Inc. filament winding machine; constructed 1995	247.5 lb/hr, output	None	None	-------	March 1, 2001
02	S2	Appalachian Plastics, Inc. filament winding machine; constructed 1979	250 lb/hr, output	None	None	-------	March 1, 2001
03	NB2	Appalachian Plastics, Inc. filament winding machine; constructed 2006	250 lb/hr, output	None	None	-------	March 1, 2001 (as amended January 20, 2006)
19	N/A	Appalachian Plastics, Inc. filament winding machine; constructed 2006	240 lb/hr, output	None	None	-------	July 28, 2006
Pressure Fed Rolling Equipment							
04	S1	Glas-Craft PFR System; linear application; constructed 1997	33.5 lb/hr, output	None	None	-------	March 1, 2001
05	NB2	Glas-Craft PFR System; tank application; constructed 1998	33.5 lb/hr, output	None	None	-------	March 1, 2001
Gelcoat Spray Equipment							
11	NB2	Binks atomized spray; constructed 1968; unknown model	10 lb/hr, output	None	None	-------	March 1, 2001

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Hand Lay Up Operations							
12	NB2	Manual resin application	280 lb/hr, output	None	None	-------	March 1, 2001
Impinged Nozzle Chopper Equipment							
13	NB2	Glas-Craft, INDY Dispense Gun; 2002	64 lb/hr, output	None	None	-------	March 1, 2001
14	NB2	Glas-Craft, INDY Dispense Gun; 2002	64 lb/hr, output	None	None	-------	March 1, 2001
15	NB2	Glas-Craft, INDY Dispense Gun; 2006	64 lb/hr, output	None	None	-------	March 1, 2001
16	NB2	Glas-Craft, INDY Dispense Gun; 2006	64 lb/hr, output	None	None	-------	March 1, 2001
17	NB2	Glas-Craft, INDY Dispense Gun; 2006	64 lb/hr, output	None	None	-------	March 1, 2001
18	NB2	Glas-Craft, INDY Dispense Gun; to be installed	64 lb/hr, output	None	None	-------	----------
21	S1	Glas-Craft, Formula Gun; to be installed	64 lb/hr, output	None	None	-------	----------
22	S2	Glas-Craft, Formula Gun; to be installed	64 lb/hr, output	None	None	-------	----------
23	NB2	Glas-Craft, Formula Gun; to be installed	64 lb/hr, output	None	None	-------	----------

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the 2011 Emission Statement is attached. Emissions are summarized in the following tables.

2011 Actual Emissions

	2011 Criteria Pollutant Emissions in Tons/Year				
Emission Unit	VOC	CO	SO_2	PM_{10}	NO_x
01 - 19	12.88	-----	-----	-----	-----
Total	12.88	-----	-----	-----	-----

2011 Facility Hazardous Air Pollutant Emissions

Pollutant	2011 Hazardous Air Pollutant Emissions in Tons/Yr
Styrene	11.44
Methyl Methacrylate	1.44

EMISSION UNIT APPLICABLE REQUIREMENTS – Facility-Wide Requirements: Units 01 through 19

Limitations
The following limitations are State BACT requirements from Conditions 2 and 3 of the Minor NSR Permit issued on July 28, 2006:

Condition 2 limits emissions from the operation of filament winding, pressure fed roller, flow coater, impinged nozzle chopping, hand lay-up, spraying and ISD chopping processes, 01 through 19, to the following:

Volatile Organic Compounds 96.09 lb/hr 116.91 tons/yr

Annual emissions will be calculated monthly as the sum of each consecutive 12-month period.

Condition 3 limits visible emissions from the facility's exhaust stack, S1, to 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except

during startup, shutdown and malfunction.

As an existing reinforced plastic composites production facility with no centrifugal casting or continuous lamination/casting operations, 9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to the open molding operation:

40 CFR 63.5805(a): Emission limitation for open molding in Table 3 and work practice standards for open molding of large parts in Table 4;

40 CFR 63.5810(a) – (d): Compliance options for existing open molding operations; and

40 CFR 63.5835(a): General requirements for compliance with the emission limitation for open molding in Table 3.

There are no add-on control devices at the facility for HAP emissions from the open molding equipment. Therefore, the emissions capture and control option in 40 CFR 63.5830(a) is not included in the permit.

Monitoring

The monitoring and recordkeeping requirements in Condition 4 of the NSR permit have been streamlined to meet Part 70 requirements.

VOC emission limits in the current NSR permit are based on resin throughput limits contained in the previous NSR permit for this source. However, resin throughput limitations were not used to limit the source's potential to emit in the current NSR permit because operating and production parameters are not readily limited due to the wide variety of resins and products and due to the unpredictable nature of this type of business. Therefore, emission limits coupled with a requirement to calculate daily emissions are used to restrict potential to emit. The permittee will be required to keep the records necessary for this calculation, including daily quantities and the VOC content of each resin used. Emission limits, in this case, are more easily enforceable than operating or production limits. Maintaining records of hourly and annual VOC emissions from the facility will monitor compliance with the VOC emission limits. Emissions will be calculated using methods and emission factors approved by the DEQ.

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to the open molding operation:

40 CFR 63.5895(c) and (d): Monitoring and data collection requirements for resin use; and

40 CFR 63.5900(a)(2) and (a)(4): Continuous compliance demonstration requirements.

Recordkeeping

The permittee will maintain records of the following:

The permittee will record weekly and annual hours of operation of the facility. Annual hours of operation will be calculated monthly as the sum of each consecutive 12-month period.

The permittee will maintain Material Safety Data Sheets (MSDS) or other vendor information showing VOC content of each resin used at the facility.

The permittee will record weekly and annual throughput of each resin to each process. Annual throughputs will be calculated monthly as the sum of each consecutive 12-month period.

The permittee will calculate and record hourly and annual emissions of VOC from the facility. Emissions will be calculated using methods and emission factors approved by the DEQ. Hourly emissions will be calculated weekly by dividing total weekly emissions by total weekly hours of operation of the facility. Annual emissions will be calculated monthly as the sum of each consecutive 12-month period.

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to the open molding operation:

40 CFR 63.5895(c) and (d): Recordkeeping requirements for resin use; and

40 CFR 63.5915 and 5920: Recordkeeping requirements.

Testing

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to the open molding operation:

40 CFR 63.5905 and 5910: Notification and reporting requirements.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upset, within one business day.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by □□□□§2.2-604 and □§10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement No. 2-2003."

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on General Condition F.

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61, subpart M, National Emission Standards for Asbestos.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Code section has specific requirements only enforceable by the State:

9 VAC 5-40-140, Standard for Odor.

FUTURE APPLICABLE REQUIREMENTS

There are no future applicable requirements for this facility.

INAPPLICABLE REQUIREMENTS

New Source Performance Standard (NSPS) Requirements for Polymeric Coating of Supporting Substrates in 40 CFR Part 60, Subpart VVV, and 9 VAC 5-50-410, are not applicable as indicated by the non-applicability determination memorandum from Michael S. Alushin, Director, Compliance Assessment and Media Programs Division, Office of Compliance, U.S. Environmental Protection Agency, dated March 20, 2001. Differences between the fiberglass reinforced plastic manufacturing processes and the processes described in the Background Information Document (BID) for NSPS Subpart VVV include, but are not limited to the following:

All coated materials discussed in the BID are polymers; the permittee's process utilizes monomeric styrene;

The permittee’s processes do not utilize solvents; the styrene monomer is liquid with physical properties sufficient for processing;

There are no flashoff, drying or curing ovens associated with the processes; they are unnecessary due to the fact that no solvents are used that need to be dried and the styrene monomer is converted to polystyrene upon heating the liquid in the forming die.

The finished product is a structural component and completely rigid, not capable of being rewound and is totally inflexible as it comes off the production line; and

The fiberglass-reinforcing matrix is not a substrate to be coated or merely

impregnated. It is a critical, supporting structure.

The MACT standard for halogenated solvent cleaning in 40 CFR Part 63, Subpart T, and 9 VAC 5 Chapter 60, Part II, Article 2, Subpart T are not currently applicable. The facility does not use any halogenated cleaning solvents in its parts washer.

Results of the calculations in Attachment A of this Statement of Basis indicate the fuel burning space heater units have the potential to emit approximately 1,394.06 tons of carbon dioxide-equivalent (CO_{2e}) per year. The provisions of 40 CFR Part 98 – Mandatory Greenhouse Gas Reporting require owners and operators of general stationary fuel combustion sources that emit 25,000 metric tons CO_{2e} or more per year in combined emissions from such units, to report greenhouse gas (GHG) emissions, annually. The definition of "applicable requirement" in 40 CFR 70.2 and 71.2 does not include requirements such as those included in Part 98, promulgated under Clean Air Act (CAA) section 114(a)(1) and 208. Therefore, the requirements of 40 CFR Part 98 are not applicable under the Title V permitting program.

As a result of several EPA actions regarding GHG under the CAA, emissions of GHG must be addressed for a Title V permit renewed after January 1, 2011. The current state minor NSR permit for the Appalachian Plastics, Inc. facility contains no GHG-specific applicable requirements and there have been no modifications at the facility requiring a PSD permit. Therefore, there are no Best Available Control Technology requirements for the facility specific to GHG.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
------	Propane/natural gas-fired space heaters, 3 units	5-80-720 A. 4	NOx, CO	0.26 MMBtu/hr heat input, each
------	Propane/natural gas-fired space heaters, 6 units	5-80-720 A. 4	NOx, CO	0.25 MMBtu/hr heat input, each

[1]The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft/proposed permit was published in the *Bristol Herald Courier* newspaper in Bristol, Virginia on November 9, 2012. Copies of the draft permit and public notice were sent to the EPA by electronic mail on November 9, 2012. A copy of the public notice was sent to the affected states, including Kentucky, North Carolina and Tennessee, by postal mail on November 9, 2012. A copy of the public notice was sent to all persons on the Title V mailing list by postal mail, electronic mail, or facsimile no later than November 9, 2012.

Public comments were accepted from November 9, 2012, through December 10, 2012. No comments were received from the public, affected states or the EPA regarding the draft permit.